

Amendments to the Specification

Please replace paragraph 0003, with the following rewritten paragraph:

In both patents, a toe [box] cup is attached to a stiff sole or shank. This structure provides the longitudinal and lateral support to hold the toe bones in alignment with the metatarsal bones. Prior art teaches the use of various materials and structures of a toe [box] cup to cushion and support the toes en pointe [point] position. Nearly all the weight of the dancer passes through the tips of the toes. This concentrates the force of gravity to a very small area of bone and tissue. Standing in Pointe is a painful technique to learn and results in many foot injuries. In particular, ballet dancers often suffer from arthritis, bunions, hammertoes, and bruised or lost toenails. The thin light bones, joints, ligaments, tendons, and muscles of the toes have not evolved to continually support the weight of the body. Failure and injury to the toes of the feet, is the result of excessive levels of physical force over extended periods of time.

Please replace paragraph 0005, with the following rewritten paragraph:

Two patents in 1997 describe Pointe shoes using materials and structures that are designed to permit some flexing at the base of the toes. Patent 5,649,373 uses a spring steel shank that assists the dancer in rolling the foot from a position flat on the floor to the Pointe position. The toes are held in extended position except during the roll up, walking, and running. During these steps, the diagonal force of the weight of the dancer is applied to the plantar surface of the toes. The shoe is too stiff to permit flexing of the toes up or down for the demi-Pointe or [tendus] tendu positions. In the sneaker Pointe shoe, patent 5,682,685, discussed above, the shank is replaced with a stiff segmented sole from the toes to the heel. The top of the toe [box] cup is removed, leaving only the sides. The side of the toe [box] cup is notched to permit the toes to flex up. This assists in walking. The stiff sole is designed to prevent all downward flexing of the toes and the tendu foot position.

Please replace paragraph 0006, with the following rewritten paragraph:

Prior art teaches that Pointe shoes use a toe [box] cup and a shank or a stiff sole to assist the dancer to stand on the tips of the toes in Pointe position. The following are of interest:

Please replace paragraph 0023, with the following rewritten paragraph:

Another object of this invention is the design of a self-locking and self-releasing transverse joint at the base of the toes. This would permit steps and foot position similar to a "ballet slipper." When on Pointe the joint is locked in place by a retractable pin. The rigid mid-foot section is held in a vertical position with respect to the toe loop. The weight of the dancer is transferred from the support surfaces of the mid-foot section to the front of the toe loop and to the floor. When not on Pointe position, the transverse axis can disengage and permits free movement of the toe loop in relation to the mid-foot segment of the shoe. The foot position of demi-Pointe, tendu, and B+ are now possible. These positions are possible with a "Dance Slipper" and are not possible with prior art "Pointe Shoes." The shoe of this invention offers new foot positions and new choreography.

Please replace paragraph 0033, with the following rewritten paragraph:

FIG. 6B a side view of the inner attachment plate and FIG. 6C is front view of the control plate and inner plate secured to the dorsal plate.

Please replace paragraph 0037, with the following rewritten paragraph:

FIG. 7B a side view of the inner attachment plate and FIG. 7C is front view of the control plate and inner plate secured to the dorsal plate.

Please replace paragraph 0044, with the following rewritten paragraph:

In FIG. 1, the classic Pointe shoe has a rigid shank 11 from the tip of the toes 12 to the back of the arch at the front of the heel bone 2. The rigid toe cup 10 is shaped to hold the 14 toe bones as a single structural unit. The toe cup 10 and, the five metatarsals are secured to the shank 11 by a flexible top and sides. Elastic [traps] straps, not shown, secure the heel and arch of the shoe to the ankle area of the mid-foot bones.

Please replace paragraph 0046, with the following rewritten paragraph:

In FIG. 2 a schematic of the invention, the weight of the dancer passes down the tibia and fibula of the leg through the talus 1 and the heel bone 2. The downward force first contacts the surface of the shoe at the support area 21 on the sole of the heel bone 2. The remainder of the weight is supported by area of bone indicated by 22 on the dorsal side of the foot. Additional weight of the dancer is also supported by area 23 on the sole side of the mid-foot bones 3, 4, and the back end of the metatarsals 5. These bones are larger and these tendons and ligaments are stronger than the toes. This shoe is more comfortable to wear, and may result in fewer injuries to the foot, especially to the bones, ligaments, muscles, and tendons of the toes. The areas of support are located on the inside surface of the rigid mid-foot segment 25. It is a truncated cone 26 with a base opening [26] 30 located near the heel bone. The front ends of the metatarsals pass through a smaller opening 27 at the truncated apex of the cone. All the weight of the dancer passes through the joint 28 to a toe loop 29 directly to the floor.

Please replace paragraph 0047, with the following rewritten paragraph:

None of the weight needs to be supported by the toes. This is an advantage over the prior art of Fig. 1. With a lock axis, joint 28 engaged in a vertical position, the two rigid elements 25 and 29 acts as one rigid shoe. When the weight of the dancer is not passing vertically down to the floor, the lock joint 28 releases and is free to move. This permits the flexing of the toes relative to the metatarsals, for walking running and the foot positions of demi-Pointe, and tendu. Transverse joint 28 at the base of the toes may also be spring loaded to replicate the flexing and form of the prior art in response to the weight of the dancer.

Please replace paragraph 0049, with the following rewritten paragraph:

FIG. 4 is a drawing of the shoe with the foot in three-quarter position, often called demi-Pointe in class or choreography. The joint 28 is in an unlocked position permitting the toes to be bent in an up position. The weight of the dancer is supported on the front end of the five metatarsals. When turning, all the weight is supported by the ball of the foot 9. The semi-flexible arch plate 31 is designed to allow maximum contact of the support surfaces of the foot bones with the floor. When standing flat-footed these bones are: the front of the metatarsals, the back end of the fifth metatarsal, and the back sole surface of the heel bone. A notch 39 allows the back end of the small toe metatarsal to have contact with the floor. The toes are isolated from the floor by a toe [box] cup shown in FIG. 5. The sensation of the floor through the bones of the foot helps in the maintenance of balance through directed force to these bone surfaces. The stiff shank and toe [box] cup of a prior art Pointe shoe isolates the foot from the flat surface of the dance floor, which makes balance and dance steps more difficult. This difference is an advantage of the present design.

Please replace paragraph 0051, with the following rewritten paragraph:

A toe cup or box 50 encloses the toes and provides a means for the toes to control the direction of rotation of the toe loop 29 about the transverse axis 28. The rigid structure of the toe [box] cup 50 comprises the toe loop 29, and the rigid top shell 51. The front end has a slightly rounded square surface 52, which helps the dancer maintain Pointe position. A cross section view indicated by the set of bent 8 arrows is viewed and discussed as FIG. 8. The shoe generally includes a plurality of liners as shown in FIG. 9. Thus liners comprise a sense shaping material 93, a cushioning material 94, an inner liner 91 for ease of ingress and egress and an inner non-slip liner 92 for stabilizing the shoe position when secured to the foot.

Please replace paragraph 0054, with the following rewritten paragraph:

Fig. 8 is a cross section view of a toe cup indicated in FIG. 5. A cup [81] 50 comprising shaping and cushioning materials are attached to the inside surface of the toe loop 29. A dense impact absorbing material 82 is attached to the front surface and plantar edge of the toe loop 29. A layer of less dense impact absorbing material 83 covers the front surface and plantar edge surface of the toe loop 29 and the sole surface of the toe cup 81. This version provides a feeling for the dance floor by the toes that is similar to a toe cup of a prior art Pointe shoe. An alternate toe cup has a split leather sole. It would provide a feeling for the floor similar to a ballet slipper.

Please replace paragraph 0057, with the following rewritten paragraph:

FIG. 10 is a best mode-contemplated sketch of the shoe in Pointe position. This top medial view is similar to FIG. 3. Most of the shoe structure comprises the large complex or midfoot part 101. It has a semi-flexible sole similar in shape to part 36. The sides are rigid and extend into flexible overlapping top section that [enclose] encloses the rigid tongue 102. This structural form is used in ski boots. A shoe design, that secures a foot comfortably, when high longitudinal and lateral forces are applied to a ski by the foot through the boot. The heel support 103 is equivalent to part 37 of FIG. 3. It is attached to the side of 101 at the two lateral axis

points 104. It is free to rotate with the sole of the heel bone 2. The shoe has three rigid sections: a mid-foot 101, a heel support or loop 103, and a toe loop 29. This allows the rigid parts of the shoe to better adjust to the bones of the foot from flat on the floor to Pointe position. A reverse of the structure from top to bottom top is also a likely alternative. The top of the shoe is rigid like FIG. 3 to FIG. 5. There is a semi-rigid arch plate attached to the medial side of the shoe. The sides of the shoe are made more flexible as they extend to overlap and enclose the arch plate and secure it to the sole of the foot.